

In the Claims:

1 1. (currently amended) A combination including a receptacle
2 connector that is to be mounted on a counterpart member,
3 and a plug connector that is connected to an electric wire
4 or a flat type flexible cable and is to be connected to the
5 receptacle connector, wherein the combination has features
6 as follows with reference to a depth direction, a width
7 direction and a thickness direction all being perpendicular
8 to each other,

9 the plug connector, when seen in the thickness
10 direction, has a shape substantially a rectangle having
11 respective sides thereof extending in the depth direction
12 and the width direction, the plug connector includes a
13 contact that is exposed on at least one face thereof in the
14 thickness direction at an inward edge in the depth
15 direction, and the plug connector includes respectively a
16 plug width fitting face that faces outward in the width
17 direction as well as a plug depth fitting face that faces
18 outward in the depth direction respectively provided at two
19 locations spaced from each other in the width direction,

20 the receptacle connector comprises

21 a receptacle connector body having a groove
22 bounded between two transverse walls spaced apart and
23 arranged opposite each other in the thickness
24 direction and a vertical wall extending between the
25 two transverse walls, wherein the groove opens outward
26 in the depth direction and is adapted to have the

4598/WFF:kd

- 2 -

inward edge of the plug connector inserted therein,
and wherein the receptacle connector body includes at
least an insulating part thereof that is insulating,

a conductive contact comprising a contacting part
that is able to undergo elastic deformation in the
thickness direction in the groove of the receptacle
connector body and that is adapted to contact the
contact of the plug connector, and a connecting part
adapted to be connected to the counterpart member, the
conductive contact being provided in the insulating
part of the receptacle connector body, and

a pair of latch arms extending outward in the
depth direction from two locations that are spaced
from each other in the width direction on the
receptacle connector body, and wherein the latch arms
are ~~[[able]]~~ adapted and constructed to undergo
elastic deformation in the width direction,

and each latch arm is provided with a retaining part
projecting inward in the width direction, and each said
retaining part respectively includes a guiding part that
generates a component force acting outward in the width
direction ~~[[from]]~~ so as to outwardly elastically deflect
each said latch arm respectively due to a pressing force
acting on the guiding part toward the counterpart member in
the thickness direction, a receptacle width fitting face
facing inward in the width direction and adapted to
cooperate with the plug width fitting face of the plug
connector, and a receptacle depth fitting face facing

55 inward in the depth direction and adapted to cooperate with
56 the plug depth fitting face of the plug connector.

1 2. (previously presented) The combination as recited in
2 claim 1, wherein

3 each said retaining part is, when seen in the
4 thickness direction, substantially a rectangle having
5 respective sides thereof extending in the depth direction
6 and the width direction,

7 the guiding part comprises a portion of the retaining
8 part on a face thereof opposite the counterpart member and
9 tilting inward in the width direction and toward the
10 counterpart member, or a chamfered corner inward in the
11 width direction and inward in the depth direction of the
12 retaining part,

13 the receptacle width fitting face comprises an inward
14 end face in the width direction of the retaining part, and

15 the receptacle depth fitting face comprises an inward
16 end face in the depth direction of the retaining part.

Claim 3 (canceled).

1 4. (previously presented) The combination as recited in
2 claim 2, wherein

3 the receptacle connector further comprises a metallic
4 cover on a surface of the receptacle connector body on the
5 side opposite to the counterpart member, and

6 the two latch arms are made of a metal, and root ends
7 of the respective latch arms are integrally provided on
8 respective ends in the width direction of the metallic
9 cover.

Claims 5, 6, 7 (canceled).

1 8. (previously presented) The combination as recited in
2 claim 4,

3 the plug connector comprising an insulating
4 plate-shaped plug connector body that has the shape
5 substantially a rectangle,

6 the contact having conductivity and being provided on
7 the plug connector body, the contact comprising a
8 contacting part being exposed at the inward edge in the
9 depth direction of the plug connector body at least on one
10 face thereof in the thickness direction and a connecting
11 part connected to the electric wire or the flat type
12 flexible cable, and

13 the plug width fitting face and the plug depth fitting
14 face being provided on the plug connector body at the two
15 locations spaced from each other in the width direction
16 thereof.

Claims 9, 10, 11 (canceled).

1 12. (previously presented) The combination as recited in
2 claim 8, wherein the plug connector body has concaved parts

4598/WFF:kd

- 5 -

3 concaving in the thickness direction at corners of the plug
4 connector body at respective ends thereof in the width
5 direction and facing outward in the depth direction, and
6 the concaved parts are bounded respectively by first walls
7 facing outward in the width direction and forming the plug
8 width fitting faces as well as second walls facing outward
9 in the depth direction and forming the plug depth fitting
10 faces.

1 13. (previously presented) The combination as recited in
2 claim 2,

3 the plug connector comprising an insulating
4 plate-shaped plug connector body that has the shape
5 substantially a rectangle,

6 the contact having conductivity and being provided on
7 the plug connector body, the contact comprising a
8 contacting part being exposed at the inward edge in the
9 depth direction of the plug connector body at least on one
10 face thereof in the thickness direction and a connecting
11 part connected to the electric wire or the flat type
12 flexible cable, and

13 the plug width fitting face and the plug depth fitting
14 face being provided on the plug connector body at the two
15 locations spaced from each other in the width direction
16 thereof.

1 14. (previously presented) The combination as recited in
2 claim 13, wherein the plug connector body has concaved

parts concaving in the thickness direction at corners of the plug connector body at respective ends thereof in the width direction and facing outward in the depth direction, and the concaved parts are bounded respectively by first walls facing outward in the width direction and forming the plug width fitting faces as well as second walls facing outward in the depth direction and forming the plug depth fitting faces.

15. (previously presented) The combination as recited in claim 1, wherein

the receptacle connector further comprises a metallic cover on a surface of the receptacle connector body on the side opposite to the counterpart member, and

the two latch arms are made of a metal, and root ends of the respective latch arms are integrally provided on respective ends in the width direction of the metallic cover.

16. (previously presented) The combination as recited in claim 15,

the plug connector comprising an insulating plate-shaped plug connector body that has the shape substantially a rectangle,

the contact having conductivity and being provided on the plug connector body, the contact comprising a contacting part being exposed at the inward edge in the depth direction of the plug connector body at least on one

face thereof in the thickness direction and a connecting part connected to the electric wire or the flat type flexible cable, and

the plug width fitting face and the plug depth fitting face being provided on the plug connector body at the two locations spaced from each other in the width direction thereof.

17. (previously presented) The combination as recited in claim 16, wherein the plug connector body has concaved parts concaving in the thickness direction at corners of the plug connector body at respective ends thereof in the width direction and facing outward in the depth direction, and the concaved parts are bounded respectively by first walls facing outward in the width direction and forming the plug width fitting faces as well as second walls facing outward in the depth direction and forming the plug depth fitting faces.

18. (previously presented) The combination as recited in claim 1,

the plug connector comprising an insulating plate-shaped plug connector body that has the shape substantially a rectangle,

the contact having conductivity and being provided on the plug connector body, the contact comprising a contacting part being exposed at the inward edge in the depth direction of the plug connector body at least on one

face thereof in the thickness direction and a connecting part connected to the electric wire or the flat type flexible cable, and

the plug width fitting face and the plug depth fitting face being provided on the plug connector body at the two locations spaced from each other in the width direction thereof.

19. (previously presented) The combination as recited in claim 18, wherein the plug connector body has concaved parts concaving in the thickness direction at corners of the plug connector body at respective ends thereof in the width direction and facing outward in the depth direction, and the concaved parts are bounded respectively by first walls facing outward in the width direction and forming the plug width fitting faces as well as second walls facing outward in the depth direction and forming the plug depth fitting faces.

20. (currently amended) An electrical connection arrangement for connecting a flexible conductor to an article, said connection arrangement comprising:

a receptacle connector that is adapted to be mounted on the article and that comprises:

a receptacle body that comprises an insulating receptacle body part and that bounds an elongated receptacle socket extending longitudinally therealong in a width direction along a socket plane,

10 a conductive receptacle contact secured to said
11 receptacle body and including a first contacting part
12 and a first connecting part, wherein said first
13 contacting part is exposed in said receptacle socket
14 and is elastically flexibly deflectable in a thickness
15 direction perpendicular to said socket plane, and
16 wherein said first connecting part is exposed from
17 said receptacle body and is adapted to be electrically
18 connected to the article,

19 two latch arms that extend from said receptacle
20 body parallel to each other in a depth direction
21 perpendicular to said width direction and said
22 thickness direction, and that are spaced apart from
23 each other in said width direction, and that are
24 elastically flexibly deflectable in said width
25 direction, and

26 a respective retaining part provided on a
27 respective free end of each respective latch arm of
28 said latch arms, wherein each said retaining part
29 respectively comprises a first retaining face that
30 faces toward said receptacle body in said depth
31 direction, a second retaining face that faces toward
32 an opposite one of said retaining parts in said width
33 direction, and a deflection guide part configured to
34 generate a component force acting on said respective
35 retaining part outwardly in said width direction away
36 from said opposite one of said retaining parts so as
37 to outwardly elastically deflect each said latch arm

38 respectively when a pressing force is exerted onto
39 said deflection guide part in said thickness
40 direction;

41 and

42 a plug connector that is adapted to be connected to
43 the flexible conductor and that comprises:

44 a plug body that comprises an insulating plug
45 body part and that includes a forward plug end
46 configured and adapted to be inserted into said
47 receptacle socket, and

48 a conductive plug contact secured to said plug
49 body and including a second contacting part and a
50 second connecting part, wherein said second contacting
51 part is exposed at said forward plug end and is
52 adapted to contact said first contacting part in said
53 receptacle socket when said forward plug end is
54 inserted into said receptacle socket, and wherein said
55 second connecting part is configured and adapted to be
56 connected to the flexible conductor;

57 and wherein

58 said plug body includes two pressing portions
59 positioned and adapted to press against and exert said
60 pressing force onto said deflection guide parts of said
61 receptacle connector when said forward plug end has been
62 partly inserted into said receptacle socket at a tilt angle
63 about said width direction relative to said socket plane
64 and then said plug connector is pressed toward and into
65 planar alignment with said socket plane so that thereby

66 said latch arms are outwardly elastically deflected until
67 said pressing portions move past and clear said deflection
68 guide parts, whereupon said plug connector becomes engaged
69 with said receptacle connector,

70 said plug body further includes two first engaging
71 faces that face away from said forward plug end and said
72 receptacle body in said depth direction and that are
73 respectively engaged by said first retaining faces of said
74 receptacle connector when said forward plug end is inserted
75 into said receptacle socket and said plug connector is
76 engaged with said receptacle connector, and

77 said plug body further includes two second engaging
78 faces that face outwardly away from one another in said
79 width direction and that are respectively engaged by said
80 second retaining faces of said receptacle connector when
81 said forward plug end is inserted into said receptacle
82 socket and said plug connector is engaged with said
83 receptacle connector.

1 21. (previously presented) The electrical connection
2 arrangement according to claim 20, further in combination
3 with said flexible conductor which is selected from the
4 group consisting of flexible electrical wires and flat
5 flexible electrical cables, wherein said flexible conductor
6 is connected to said second connecting part of said plug
7 contact of said plug connector.

1 22. (previously presented) The electrical connection
2 arrangement according to claim 20, wherein

3 each said retaining part comprises a bent metal member
4 having a fixed end that is fixed to said free end of said
5 respective latch arm, a first tab bent from said fixed end
6 inwardly in said width direction to a bent edge toward said
7 opposite one of said retaining parts, and a second tab bent
8 from said bent edge outwardly in said width direction away
9 from said opposite one of said retaining parts and
10 terminating at a free terminal edge,

11 said second tab forms said deflection guide part,

12 said bent edge forms said second retaining face, and

13 a side edge along said first tab, said bent edge and
14 said second tab forms said first retaining face.

1 23. (previously presented) The electrical connection
2 arrangement according to claim 22, wherein said second tab
3 transitioning to said bent edge and forming said deflection
4 guide part slopes or curves about said depth direction
5 relative to said socket plane.

1 24. (currently amended) The electrical connection arrangement
2 according to claim 20, wherein said receptacle body further
3 comprises a metal cover extending along and connected to
4 said insulating receptacle body part, and said latch arms
5 are ~~receptive~~ respective metal elements protruding
6 integrally from and forming one piece with said metal
7 cover.

1 25. (previously presented) The electrical connection
2 arrangement according to claim 20, wherein said plug body
3 has inverted corner recesses at corners thereof oriented
4 opposite said forward plug end in said depth direction and
5 opposite one another in said width direction, and wherein
6 said inverted corner recesses each respectively are bounded
7 by a first wall forming one of said first engaging faces
8 and a second wall forming one of said second engaging
9 faces.

[RESPONSE CONTINUES ON NEXT PAGE]